WHAT IS CLAIMED IS:

1. A communication system using multi-frame signals, each frame of the multi-frame signal being divided into a plurality of timeslots, wherein in at least one frame of the multi-frame signal first control channel information is transmitted in a first timeslot immediately preceding a second timeslot in which second control channel information is transmitted.

2. The communication system as claimed in claim 1, wherein bursts containing control channel information overlap the timeslot boundary between first and second timeslots.

3. The communication system as claimed in claim 1, wherein adjacent bursts containing first and second control channel information have a combined length greater than a normal burst length.

4. The communication system as claimed in claim 1, wherein a single burst containing first control channel information and second control channel information is transmitted.

5. The communication system as claimed in claim 1, wherein the control channel information contains information indicating the frame of the multi-frame containing the control channel information.

6. The communication system as claimed in claim 1, wherein the length of a burst or the part of a burst which contains first control channel information is less than the length of a normal burst.

7. The communication system as claimed in claim 1, wherein the length of a burst or the part of a burst containing first control channel information is variable.

8. The communication system as claimed in claim 1, wherein the length

of a burst or part of a burst containing first control channel information depends on the size of cells in the communication system.

9. The communication system as claimed in claim 1, where the length L of a burst or the part of a burst containing first control channel information is given by:

$$L < N\text{-}d/(t_s.c)$$

where N is the number of symbols between the beginning of the first timeslot and the end of the burst;

$t_s$ is the symbol duration;

d is the distance to an adjacent base station; and

c is the speed of light.

10. The communication system as claimed in claim 1, wherein the first control channel information is frequency correction information and the second control channel information is synchronization information

11. A base station adapted for use in the communication system as claimed in claim 1.

12. A subscriber station adapted for use in the communication system as claimed in claim 1.

13. The subscriber station as claimed in claim 12, wherein the subscriber station uses frequency correction channel information to set an automatic frequency correction algorithm before decoding of synchronization channel information, this correction being a software correction applied on memorized samples of the synchronization channel.